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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Philippe Tardieu

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CLARK & ELBING LLP
101 FEDERAL STREET
BOSTON, MA 02110

EXAMINER

EIDE, HEIDI MARIE

ART UNIT

PAPER NUMBER

3732

NOTIFICATION DATE

DELIVERY MODE

12/18/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentadministrator@clarkelbing.com

Office Action Summary	Application No. 10/596,124	Applicant(s) TARDIEU, PHILIPPE	
	Examiner HEIDI M. EIDE	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-56 is/are pending in the application.
- 4a) Of the above claim(s) 54-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/22/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Newly submitted claims 54-56 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The related inventions are distinct if (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed have materially different design(s), mode(s) of operation, function(s) and effect(s). Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

The original claims are directed to a dental implant and a prosthesis, an impression coping, an implant replica and a burn out cylinder.

The newly presented claims are directed to an implant holder.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 54-56 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The drawings were received on June 5, 2008. These drawings are accepted.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the abutment, the anchorage part as a separate cylindrical component and the dedicated features on the fixture head of the implant must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an

amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-34, 38 and 44-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claims 44-51, the applicant positively claims the retaining screw, impression coping and burn-out cylinder in each of the independent claims. Applicant then claims each of the claimed elements for use with a non-claimed element. Further in each of these claims, the applicant claims limitations of the claimed element in combination with the non-claimed element. It is unclear in each of these claims what the applicant is really trying to claim.

Claims 33 and 34 recites the limitation "the threaded shaft" in lines 3 and 2 respectively. There is insufficient antecedent basis for this limitation in the claims.

Claim 38 recites the limitation "the proximal surface" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 51 recites the limitations "the diameter of proximal" in line 2, "said two parts" in line 3 and "the distal part" in line 3. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30-32 and 37-39 rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122.

Forsmalm teaches a combination of a dedicated dental implant, a prosthesis comprising an anchorage part and a retaining screw 4, wherein the anchorage part of the prosthesis comprises a hole for the retaining screw, characterized in that the diameter of the neck of the retaining screw is smaller than the diameter of the hold in the anchorage part of the prosthesis as illustrated in fig. 2a. Forsmalm further teaches the connection between the implant anchorage part of the prosthesis allow, upon fixing the prosthesis to the dental implant with the retaining screw, compensation for lateral misalignments between the center of the anchorage part of the prosthesis and the center of the dental implant by way of lateral movements of the prosthesis on the dental implant (col. 2, ll. 50-65). Forsmalm teaches the diameter of the neck of the retaining screw is smaller with respect to the diameter of the hole in the anchorage part of the prosthesis however does not specifically teach the lateral movement of the prosthesis on the implant is about 0.4 to about 1.4 mm and the diameter of the neck of the retaining screw is 0.4 to 1.2 mm smaller with respect to the diameter of the hole in the anchorage part of the prosthesis, however it would have been obvious to one having ordinary skill in the art at the time of the invention to provide greater lateral movement to allow for greater degree of correction. Forsmalm further teaches the anchorage part is an integral part of the prosthesis and the implant comprises a fixture head as illustrated in fig. 2b. Forsmalm does not teach the connection between the implant and the anchorage part of the prosthesis comprises a flat to flat connection, wherein the implant is a single structure and said flat to flat connection is between the proximal surface of the fixture head of the implant and the anchorage part of the prosthesis and an

abutment. Gordon teaches the connection between the implant and the anchorage part of the prosthesis comprises a flat to flat connection, the anchorage part of the prosthesis comprises a flat to flat connection and wherein the implant is a single structure and said flat to flat connection is between the proximal surface of the fixture head of the implant and the anchorage part of the prosthesis and an abutment as illustrated in fig. 17. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon as a matter of obvious design choice since the applicant teaches on page 4 in the last paragraph interlocking features, such as those taught by Forsmalm as an alternative to a flat to flat connection.

Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Kumar et al. 6,447,295 (Kumar). Forsmalm in view of Gordon does not teach the combination wherein the diameter of the neck of the retaining screw is smaller than its threaded shaft and there is no tolerance between the threaded shaft of the retaining screw and the hole in the anchorage part of the prosthesis. Kumar teaches wherein the diameter of the neck of the retaining screw is smaller than its threaded shaft and there is no tolerance between the threaded shaft of the retaining screw and the hole in the anchorage part of the prosthesis as illustrated in fig. 2. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of in order to fasten the prosthesis to the implant as taught by Kumar (col. 7, ll. 34-36) and since the

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modification involves a in size and it has been held that a change in the size involve routine skill in that art (*In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) MPEP 2144.04 IV A).

Claims 35 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm). Forsmalm teaches a combination of a dedicated dental implant or implant assembly, a prosthesis comprising an anchorage part and a retaining screw, wherein the anchorage part of the prosthesis comprises a hole for the retaining screw, characterized that the diameter of the neck of the retaining screw is smaller than the diameter of the hold in the anchorage part of the prosthesis wherein the interface of the implant or implant assembly with the anchorage part of the prosthesis is characterized by interlocking features which ensure a tolerance interlock, allowing, upon fixing of the prosthesis to the implant or implant assembly with the retaining screw compensation for lateral misalignments. Forsmalm does not specially teach compensation for lateral misalignments of about 0.4 to about 1.4 mm; however, however it would have been obvious to one having ordinary skill in the art at the time of the invention to provide greater lateral movement to allow for greater degree of correction (col. 2, ll. 50-65). As to claim 48, Forsmalm teaches an impression coping for taking an impression of a dental implant or implant assembly comprising at its proximal end a flat surface comprising an anchorage part as illustrated in fig. 2b. The impression coping taught by Forsmalm is capable of interfacing with an implant oar implant assembly to form a flat to flat interface.

Claims 36 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Lazzara et al. 4,988,297 (Lazzara). Forsmalm in view of Gordon teach the invention as discussed above, however, does not teach the anchorage part is a separate cylindrical component that can be incorporated into a prosthesis and an impression coping with a flat surface for a flat to flat connection to the implant and an implant replica comprising a flat proximal surface for a flat to flat connection with the anchorage part of the prosthesis or impression coping. Lazzara teaches the anchorage part 18 is a separate cylindrical component that can be incorporated into a prosthesis (col. 3, ll. 43-44, 57-63) and an impression coping 56 with a proximal surface that is flat capable of producing a flat to flat connection to the implant and an implant replica 70 comprising a proximal end surface that is flat that is capable of a flat to flat connection with an impression coping as illustrated in fig. 4 (col. 4, ll. 60-63).. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of Lazzara since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art (*In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) MPEP 2144.04 V C) and as a matter of obvious design choice since the applicant teaches on page 4 in the last paragraph interlocking features, such as those taught by Forsmalm as an alternative to a flat to flat connection.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Gahlert 2005/0106534. Forsmalm in view of Gordon does not teach the combination wherein the implant has an external surface comprising a distal part which is treated in interface with bone and a proximal part which is untreated, characterized in that the proximal part has a length of between 2 and 6 mm. Gahlert teaches the implant has an external surface comprising a distal part which is treated in interface with bone and a proximal part which is untreated (par. 15). Forsmalm in view of Gordon further in view of Gahlert does not teach the proximal part has a length of between 2 and 6 mm. However the applicant discloses on page 13, line 31 of the specification that the size and length of the implant does not matter, therefore the length of the implant would have been an obvious matter of design choice. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of Gahlert in order to facilitate ossification as taught by Gahlert (par. 15)

Claims 41 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Bori 4,872 840. Forsmalm in view of Gordon teach the invention as discussed above, however, does not specifically teach the fixture head of the implant at the interface of the implant with the prosthesis has a flat surface, further comprising in said flat surface one or more dedicated feature to allow easy

extraction of the implant after placement. Bori teaches the fixture head of the implant at the interface of the implant with the prosthesis has a flat surface, further comprising in said flat surface one or more dedicated features is a number of small intrusions 42 of the said e of the head of the fixture as illustrated in fig. 3. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of Bori in order to provide increased stabilization of the implant during the healing period as taught by Bori (col. 15, ll. 1-2).

Claims 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Kumar et al. 6,447,295 (Kumar). Forsmalm further teaches a retaining screw 11 for fixing a prosthesis to a dental implant or implant assembly having at their interface a tolerance interlock and the threaded shaft fits into a threaded hold in the implant or implant assembly as illustrated in fig. 2b. Forsmalm does not specifically teach that the diameter of the neck of the retaining screw is about 0.4 to 1.2 m smaller with respect to the diameter of a hold in an anchorage part of the prostheses, however, however it would have been obvious to one having ordinary skill in the art at the time of the invention to provide greater lateral movement to allow for greater degree of correction (col. 2, ll. 50-65). Forsmalm does not teach diameter of its neck is smaller than its threaded shaft, the diameter of the threaded shaft of the retaining screw is equal to the diameter of the hole in the anchorage part of the prosthesis and the retaining screw has a cylindrical head with a conical opening inward to guide a screwdriver into position for screwing. Kumar

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teaches the diameter of the neck is smaller than its threaded shaft, the diameter of the threaded shaft of the retaining screw is equal to the diameter of the hole in the anchorage part of the prosthesis and a cylindrical head 60 with a conical opening inwards 74 as illustrated in fig. 2. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Kumar in order to fasten the prosthesis to the implant as taught by Kumar (col. 7, ll. 34-36) and since the modification involves a change in size and it has been held that a change in the size involves routine skill in that art (*In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) MPEP 2144.04 IV A).

Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rassoli et al. 5,662,473 (Rassoli). Rassoli teaches a burn-out cylinder 11 comprising a proximal end which comprises a flat surface as illustrated in fig. 5 (col. 2, ll. 59-61). The proximal end is capable of connection to an implant replica comprising a flat surfaced proximal end for connection with the proximal flat surface of an anchorage part of a prosthesis or impression coping forming a flat to flat connection, the cylinder further comprises a tapered collar as illustrated in fig. 5 and the cylinder further comprises an internal shaft comprising two cylindrical parts as illustrated in fig. 7.

Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rassoli et al. 5,662,473 (Rassoli) as applied to claim 49 above, and further in view of Gordon 5,733,122. Rassoli teaches the invention as discussed above, however, does not teach

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the diameter of the proximal of the two cylindrical parts is smaller than that of the distal part. Gordon teaches, as illustrated in fig. 17, the diameter of the proximal of the two cylindrical parts is smaller than that of the distal part. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rassoli in view of Gordon since the court held that the configuration of the claimed cylinder was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed cylinder was significant (In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) MPEP 2144.04 IV B).

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Eide
Examiner
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Examiner, Art Unit 3732

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